apparatus of the invention all prior art were found to employ one of these three translation thread forms in their design. In addition to their strength, square and acme threads are deemed the most efficient of translation threads for component parts movement. Buttress threads are employed for translation loads in one direction only. These three thread types are also simpler in the design of an engagement device comprising either single or multiple teeth. In each of these three thread forms the straighter sides are nearly perpendicular to the thread axis which greatly simplifies engagement and disengagement. However each of these three thread types are very costly to manufacture, such costs being prohibitive to the economic manufacture of a hand operated kitchen tool such as a potato slicer.

The cutting of all thread forms by single point tool or with a geometric die head is known to be very costly. Therefore the search for a low cost commercially available threaded material with vee thread form was conducted. Sources were

found for low cost 12 foot lengths of roll threaded stainless steel stud stock. The 316 stainless steel material made it highly advantageous for use in a kitchen type tool as it provides corrosion resistance; the low cost provided incentive to pursue its use. This available threaded material has rolled threads and the advantage of low cost could only be achieved with engineering of its use. Several problems were found in the use of rolled threads for this application and required resolution. First the rolled threads form a minute gap at the crest from the metal displaced by rolling causing the crest to be sharp and abrasive. In product testing this sharp crest cut into the tube portion of the drive support. This problem was resolved first by grinding the crest of the thread and secondly by case hardening the inside of the tube portion of the drive support.

The predominant use of the vee thread form is in static applications such as general purpose thread fasteners. In addition to the resolution of the thread crest sharpness with

rolled threads it was essential to design a stable method of engagement. The forces toward disengagement are much greater in the application of this vee thread form on a shaft especially as regards the selection of a mating drive nut component engaging less than one half the drive spindle diameter. This resolution included development of such a component part; with sufficient thread pitches to provide the strength needed for translation of the forces in operation of the apparatus of the invention. Pressure to maintain engagement was accomplished by manually applied pressure during the cutting operation. This pressure greatly exceeds that required when using the near perpendicular threads of square, acme and buttress in maintaining of engagement. The higher pressure needed when using the vee thread form presented an additional problem of galling between the threads of the spindle and the mating drive nut. This was resolved by the selection of brass material for the drive nut to mate with the stainless steel drive spindle.

No application of the vee thread form as a translation thread was found in the search of prior art.